

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A printing apparatus comprising:

a detection section that is capable of moving and that is for detecting a medium to be printed;

a transporting section for transporting the medium to be printed in a direction that intersects a movement direction of said detection section; and

a control section,

wherein the control section first causes said detection section to be positioned on one side in said movement direction,

then causes said transporting section to transport said medium to be printed in a predetermined direction up to a first detection position where said detection section detects a first upper end of said medium to be printed, and

then causes said detection section to move from the one side to the other side that is opposite from the one side in said movement direction, where said detection section detects a second upper end of said medium to be printed,

wherein if said detection section detects that said second upper end is leading said first upper end by at least a set amount at said first detection position, said control section causes said transporting section to transport said medium to be printed from said first detection position in a direction opposite from said predetermined direction, then causes said medium to be printed to be transported in said predetermined direction up to a second detection position where said

detection section detects said medium to be printed, and then causes said medium to be printed to be transported by a predetermined amount in said predetermined direction from said second detection position; and

wherein if said detection section detects that said first upper end is leading said second upper end, said control section causes said transporting section to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount without causing said transporting section to transport said medium to be printed from said first detection position in the direction opposite from said predetermined direction.

2. (canceled).

3. (previously presented): A printing apparatus according to claim 1,

wherein when said second upper end is leading said first upper end by less than said set amount at said first detection position, said control section causes said transporting section to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount.

4. (currently amended): A printing apparatus according to claim 1, further comprising:

a print head for printing on said medium to be printed by ejecting ink as said print head moves in a main-scanning direction that intersects the transporting direction in which said medium to be printed is ~~carried~~-transported.

5. (previously presented): A printing apparatus according to claim 4,
wherein said detection section is provided together with said print head in/on a moving member for moving in said main-scanning direction.

6. (currently amended): A printing apparatus according to claim 1,
wherein the control section determines the leading end among the first upper end and the second upper end by detecting whether or not each said upper end is detected after causing said transporting section to transport said medium to be printed to said first detection position.

7. (canceled).

8. (previously presented): A printing apparatus according to claim 6,
wherein
if said detection section does not detect said medium to be printed after the detection section is moved, then it is assumed that said first upper end is leading at said first detection position, or that said second upper end is leading by less than the set amount, and
if said detection section detects said medium to be printed after the detection section is moved, then it is assumed that said second upper end is leading by at least the set amount.

9. (previously presented): A printing apparatus according to claim 1,
wherein said detection section has a light-emitting member for emitting light and a light-receiving member for receiving the light that is emitted by said light-emitting member, and detects said medium to be printed based on an output value of said light-receiving member.

10. (previously presented): A printing apparatus according to claim 4,
wherein said print head performs printing with respect to an entire surface of said
medium to be printed.

11. (canceled)

12. (previously presented): A printing method for a printing apparatus provided with
a sensor that is capable of moving and that is for detecting a medium to be printed, and a
transport roller for transporting the medium to be printed in a direction that intersects a
movement direction of said sensor, said printing method comprising:

first causing said sensor to be positioned on one side in said movement direction;

then causing said transport roller to transport said medium to be printed in a
predetermined direction up to a first detection position where said sensor detects a first upper end
of said medium to be printed; and

then causing said sensor to move from the one side to the other side that is opposite from
the one side in said movement direction, where said sensor detects a second upper end of said
medium to be printed, and

wherein if said sensor detects that said second upper end is leading said first upper end by
at least a set amount at said first detection position, causing said transport roller to transport said
medium to be printed from said first detection position in a direction opposite from said
predetermined direction, then causing said transport roller to transport said medium to be printed
in said predetermined direction up to a second detection position where said sensor detects said

medium to be printed, and then causing said transport roller to transport said medium to be printed by a predetermined amount in said predetermined direction from said second detection position, and

wherein if said detection section detects that said first upper end is leading said second upper end, causing said transport roller to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount without causing said transport roller to transport said medium to be printed from said first detection position in the direction opposite from said predetermined direction.

13. (currently amended): A computer readable storage medium which stores program instructions for causing a printing apparatus, provided with a detection section that is capable of moving and that is for detecting a medium to be printed and a transporting section for transporting the medium to be printed in a direction that intersects a movement direction of said detection section, to achieve:

a function of first causing said detection section to be positioned on one side in said movement direction;

a function of then causing said transporting section to transport said medium to be printed in a predetermined direction up to a first detection position where said detection section detects a first upper end of said medium to be printed; and

a function of then causing said detection section to move from the one side to the other side that is opposite from the one side in said movement direction, where said detection section detects a second upper end of said medium to be printed,

wherein if said detection section detects that said second upper end is leading said first upper end by at least a set amount at said first detection position, causing said transporting section to transport said medium to be printed from said first detection position in a direction opposite from said predetermined direction, then causing said transporting section to transport said medium to be printed in said predetermined direction up to a second detection position where said detection section detects said medium to be printed, and then causing said transporting section to transport said medium to be printed by a predetermined amount in said predetermined direction from said second detection position, and

wherein if said detection section detects that said first upper end is leading said second upper end, causing said transporting section to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount without causing said transporting section to transport said medium to be printed from said first detection position in the direction opposite from said predetermined direction.

14. (currently amended): A computer system comprising:

a printing apparatus provided with a detection section that is capable of moving and that is for detecting a medium to be printed, a transporting section for transporting the medium to be printed in a direction that intersects a movement direction of said detection section, a control section, and a main computer unit that is connected to said printing apparatus; wherein

said control section of the printing apparatus:

first causes said detection section to be positioned on one side in said movement direction;

then causes said transporting section to transport said medium to be printed in a predetermined direction up to a first detection position where said detection section detects a first upper end of said medium to be printed; and

then causes said detection section to move from the one side to the other side that is opposite from the one side in said movement direction, where said detection section detects a second upper end of said medium to be printed, and

wherein if said detection section detects that said second upper end is leading said first upper end by at least a set amount at said first detection position, said control section causes said transporting section to transport said medium to be printed from said first detection position in a direction opposite from said predetermined direction, then causes said transporting section to transport said medium to be printed in said predetermined direction up to a second detection position where said detection section detects said medium to be printed, and then causing said transporting section to transport the medium to be printed by a predetermined amount in said predetermined direction from said second detection position, and

wherein if said detection section detects that said first upper end is leading said second upper end, said control section causes said transporting section to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount without causing said transporting section to transport said medium to be printed from said first detection position in the direction opposite from said predetermined direction.

15. (currently amended): A printing apparatus comprising:

a sensor that is capable of moving and that is for detecting a medium to be printed;

a transport roller for transporting the medium to be printed in a direction that intersects a movement direction of said sensor; and

a control section,

wherein the control section first causes said sensor to be positioned on one side in said movement direction;

then causes said transport roller to transport said medium to be printed in a predetermined direction up to a first detection position where said sensor detects a first upper end of said medium to be printed; and

then causes said sensor to move from the one side to the other side that is opposite from the one side in said movement direction, where the sensor detects a second upper end of said medium to be printed, and

wherein if said sensor detects that said second upper end is leading said first upper end by at least a set amount at said first detection position, the control section causes said transport roller to transport said medium to be printed from said first detection position in a direction opposite from said predetermined direction, then causes said transport roller to transport said medium to be printed in said predetermined direction up to a second detection position where said sensor detects said medium to be printed, and then causes said transport roller to transport said medium to be printed by a predetermined amount in said predetermined direction from said second detection position, and

wherein if said sensor detects that said first upper end is leading said second upper end, the control section causes said transport roller to transport said medium to be printed in said predetermined direction from said first detection position by said predetermined amount without

causing said transporting roller to transport said medium to be printed from said first detection position in the direction opposite from said predetermined direction.